DAVIESS COUNTY

(Daviess County Water Service Area Map)

- Estimated 1999 population of 90,300--96% on public water
- Estimated 2020 population of 94,100--96% on public water
- 655 miles of water lines, with plans for 1 additional mile
- Estimated funding needs for public water 2000-2005: $6,450,000
- Estimated funding needs for public water 2006-2020: $8,400,000

Daviess County had an estimated population of 90,324 (36,831 households) in 1999 with a projected population of 94,100 (41,500 households) in 2020. Public water is provided to about 96 percent of the county's residents. In areas of the county not served by public water, nearly all households rely on private domestic wells. Most of the county is already served, but 5 new customers will be added to public water service through new line extensions in 2000-2020.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in $1000	In $1000	in $1000	in $1000	in $1000	in $1000
DAVIESS								-
East Daviess County Water District				270			250	520
Whitesville	1	5	30				400	430
Owensboro			500				5,000	5,500
TOTAL	1	5	530	270			5,650	6,450

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in $1000	in $1000	in $1000	in $1000	in $1000	in $1000
DAVIESS								-
Owensboro			.		3,400		5,000	8,400
TOTAL	-	-	-	-	3,400		5,000	8,400

PUBLIC WATER SYSTEMS

The residents of Daviess County are presently provided water by 6 public water systems: 1 water association, East Daviess County Water Association; 3 municipal systems, Owensboro Municipal Utilities, Whitesville Water Works, and Grandview Water; and 2 water districts, Southeast Daviess County Water District, and West Daviess County Water District.

WATER SERVICE AREAS
DAVIESS COUNTY
Kentucky

Water Resource
Development Commission

EDUCATION PAYS

KGS

Owensboro

Whitesville

AUDUBON PKWY

WM. NATCHER PKWY

60 · 662 · 661 · 60 · 1389 · 144 · 142 · 764 · 54 · 764 · 81 · 56 · 231 · 554 · 815 · 431 · 1207 · 140
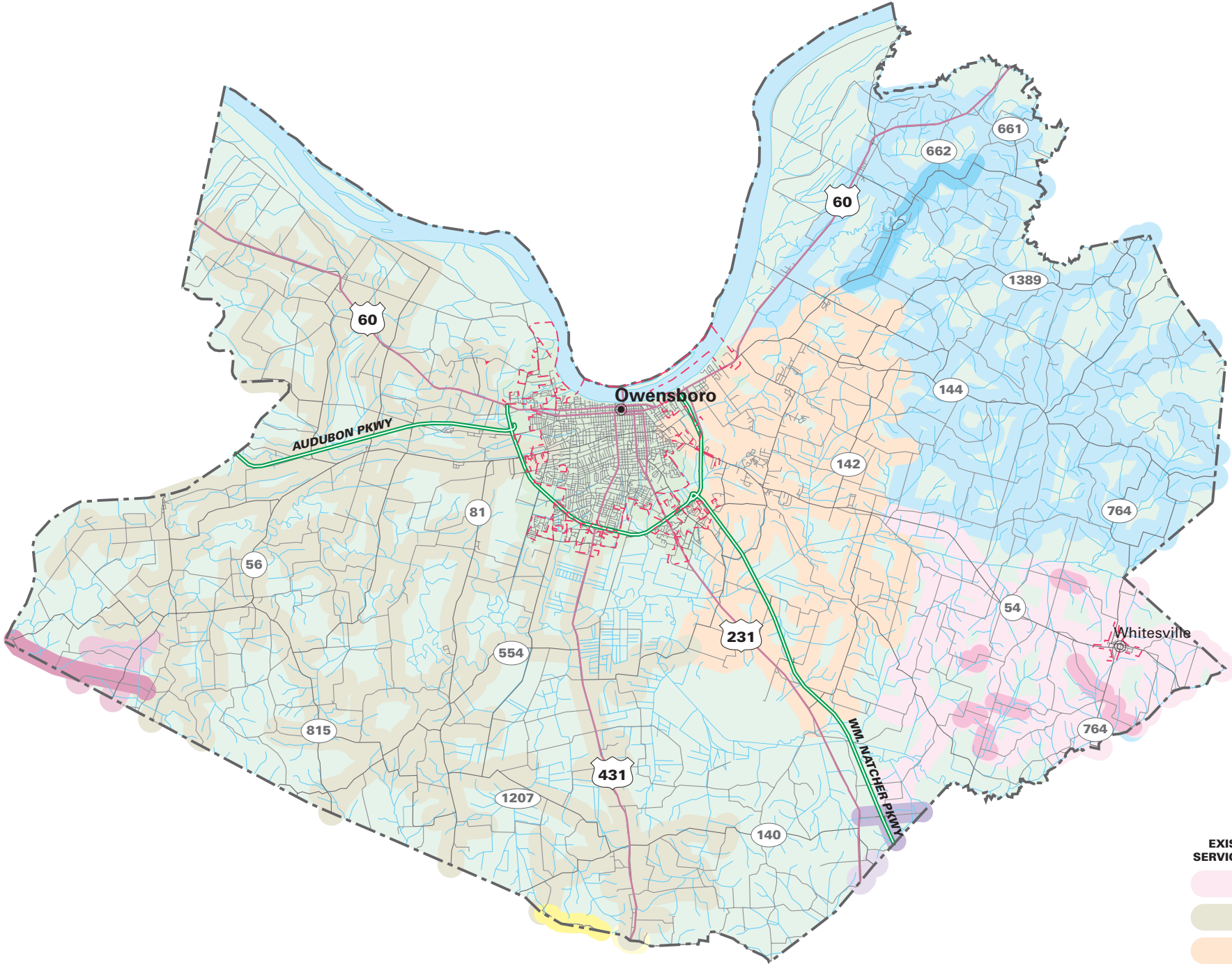
WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		WHITESVILLE WATER WORKS
		WEST DAVIESS COUNTY WATER DISTRICT
		SOUTHEAST DAVIESS COUNTY WATER DISTRICT
		OWENSBORO MUNICIPAL UTILITIES
		OHIO COUNTY WATER DISTRICT
		NORTH MCLEAN COUNTY WATER DISTRICT
		EAST DAVIESS COUNTY WATER ASSOCIATION INCORPORATED
		BEECH GROVE WATER BOARD

EAST DAVIESS COUNTY WATER ASSOCIATION INCORPORATED

PWSID: 0300109
System Type:..COMMUNITY
Owner Type:.. WATER ASSOCIATION
Surface Source:
Purchase Source: .... OMU
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):.. 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons):....................................... 1,460,000.00
Total Service Connections: 3,518.00
Number of Employees:... 6.00
Treatment Operator Class:..2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons:.. 3.99
O/M costs 1997:.. 722,993.00
O/M costs per Service Connection: 211.90
Net Revenue 1997:... 7,469.00
Total Water Produced 1997 (gallons):.. 0.00
Water Sold 1997 (gallons):... 238,495,762.00
Unaccounted-for Water 1997 (%): 13.95

The East Daviess County Water Association purchases treated water from the City of Owensboro. The association currently services approximately 2,200 residences in Daviess County, 931 residences in Hancock County, and 350 residences in Ohio County. The system purchases 800,000-gallons per day from the Owensboro. The district maintains seven water tanks for a total storage capacity of 1,460,000-gallons. East Daviess County Water Association has four certified distribution operators. All other employees provide billing and financial oversight.

Other water districts surround the East Daviess County Water Association therefore there aren't many areas into which they can expand. The water district would like to upgrade some existing lines throughout the system. The district would also like to construct a 300,000-gallon tank along Hwy 69 to increase pressure throughout the entire district.

OWENSBORO MUNICIPAL UTILITIES

PWSID: 0300336
System Type:..COMMUNITY
Owner Type:... MUNICIPAL
Surface Source:
Purchase Source:
Well Source: .... Yes
Sells Water to: .... EAST DAVIESS COUNTY WATER ASSOCIATION INC.

Treatment Plant Capacity (MGD):.. 30.00
Percent Daily Average Production: 67.00
Total Tank Storage Capacity (gallons):... 5,000,000.00
Total Service Connections: 23,103.00
Number of Employees:.. 35.00
Treatment Operator Class:..4D
Distribution Operator Class: 4A
Customer Rate for 1,000 Gallons:.. 1.61
O/M costs 1997:...Not available
O/M costs per Service Connection:...Not available
Net Revenue 1997:...Not available
Total Water Produced 1997 (gallons):....................................Not available
Water Sold 1997 (gallons):...Not available
Unaccounted-for Water 1997 (%): ....Not available

Owensboro Municipal Utilities currently draw water from 34 wells. The district services approximately 22,000 customers. The district also sells water the East Daviess County Water District, the Southeast Daviess County Water District, and the West Daviess County Water District. The system operates two treatment plants with a combined design capacity of 30,000,000-gallons per day. On the average day the system produces approximately 20,000,000-gallons per day. The district maintains four storage tanks with a combine storage capacity of 5,000,000-gallons. The calculated charge for residential water usage is $3.70 per 308 cubic feet (2,300 gallons). The water district has a total of 13 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The water district has several projects it would like to undertake. The system would like to install four additional wells within the existing well field. Eventually, the system will have to locate an additional well field due to the fact that the existing field is restricted to grow due to the location of several industrial sites near the field. The system will also need to replace the existing water tank on Frederica Street and construct two additional tanks in the Bon Harbor area to meet the growing needs of the city. The district is also looking into replacing all water mains smaller than 8 inches with at least 12-inch mains. To meet current as well as future needs of the county, projects have been selected and ranked by the OMU system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of region.

WHITESVILLE WATER WORKS

PWSID: 0300467
System Type:...COMMUNITY
Owner Type: ....MUNICIPAL
Surface Source:
Purchase Source: ....SOUTHEAST DAVIESS COUNTY WATER DISTRICT
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):... 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons):..................................... 450,000.00
Total Service Connections: 1,089.00
Number of Employees:.. 3.00
Treatment Operator Class:...2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons:..Not available
O/M costs 1997:...Not available
O/M costs per Service Connection: ....Not available
Net Revenue 1997:...Not available
Total Water Produced 1997 (gallons):....................................Not available
Water Sold 1997 (gallons):...Not available
Unaccounted-for Water 1997 (%): ....Not available

Whitesville Water Works purchases treated water from the Southeast Daviess County Water District. The district currently serves over 1,000 residences. The district maintains two storage tanks for a total capacity of 450,000-gallons. The Whitesville Water District employees two certified treatment plant operators and distribution operators. The other employees provide billing and financial oversight.

The Whitesville Water District is surrounded by other existing water systems therefore there aren't any areas into which the district can extend. The system would like to loop several lines within the system to provide better pressure throughout the system. The system would also like to construct a 400,000-gallon storage tank to improve the pressure problems as well. To meet current as well as future needs of the county, projects have been selected and ranked by the Whitesville Water system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of region.

SOUTHEAST DAVIESS COUNTY WATER DISTRICT

PWSID: 0300387
System Type:...COMMUNITY
Owner Type:... WATER DISTRICT
Surface Source:
Purchase Source: .... CITY OF OWENSBORO
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):... 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons):... 1,500,000.00
Total Service Connections: 4,905.00
Number of Employees:... 1.00
Treatment Operator Class:..3D
Distribution Operator Class:
Customer Rate for 1,000 Gallons:... 2.37
O/M costs 1997:.. 1,025,553.00
O/M costs per Service Connection: 212.07
Net Revenue 1997:.. 50,565.00
Total Water Produced 1997 (gallons):... 0.00
Water Sold 1997 (gallons):.. 519,726,240.00
Unaccounted-for Water 1997 (%): 8.06

WEST DAVIESS COUNTY WATER DISTRICT

PWSID: 0300450
System Type:...COMMUNITY
Owner Type:... WATER DISTRICT
Surface Source:
Purchase Source: .... CITY OF OWENSBORO
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):... 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons):... 1,500,000.00
Total Service Connections: 3,516.00
Number of Employees:... 1.00
Treatment Operator Class:..2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons:... 2.57
O/M costs 1997:.. 741,964.00
O/M costs per Service Connection: 213.82
Net Revenue 1997:.. 28,719.00
Total Water Produced 1997 (gallons):... 0.00
Water Sold 1997 (gallons):.. 318,505,450.00
Unaccounted-for Water 1997 (%): 16.43

The Southeast Daviess County Water District and the West Daviess County Water District currently purchase treated water from the City of Owensboro. The two districts serve a total of over 8,000 residents. The two districts have a total storage capacity of 3,030,000-gallons.

One certified distribution operator operates both systems. The other employees provide billing and financial oversight.

OTHER SYSTEMS

GRANDVIEW WATER

Grandview Water System is located in Daviess County. The system serves a population of 171 and has 52 service connections. The municipal, community system purchases water from West Daviess County Water District.

PRIVATE DOMESTIC SYSTEMS

About 3,500 people in Daviess County rely on private domestic water wells.

The alluvium along the Ohio River is the best source of ground water in the county. In northern Daviess County nearly all drilled wells from depths of less than 150 feet in the alluvium of the Ohio River valley are adequate for domestic use with most wells yielding more than 50 gallons per minute (gpm) with some wells yielding as much as 750 gpm. In most of central and southern Daviess County most wells from depths of less than 300 feet that penetrate sandstone are adequate for a domestic supply. In several small-localized areas in southern Daviess County, most wells yield little or no water.

Generally, ground water is hard to very hard and iron and salt may be present in objectionable amounts. Often in deep wells, ground water becomes too mineralized to use.